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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/735,509	12/14/2000	Kyoung-Su Ha	3430-0158P	5772

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EXAMINER

AKKAPEDDI, PRASAD R

ART UNIT PAPER NUMBER

2871

DATE MAILED: 09/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/735,509

Applicant(s)

HA ET AL.

Examiner

Prasad R Akkapeddi

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 July 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Specification***

1. The amendment filed on July 11, 2002 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: Claim 13 includes 'wherein an optical axis of the second retardation film is perpendicular to that of the third retardation film'.

Applicant is required to cancel the new matter in the reply to this Office Action.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 13 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention: "wherein an optical axis of the second retardation film".

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2871

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1,2, 5, 6, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tillin et al (Tillin) (U.S.Patent No. 6,204,904) in view of Kubo et al (Kubo) (U.S.Patent No. 6,295,109).

As to claims 1, 6, and 10: Tillin discloses a reflective liquid crystal display device, comprising a first substrate (20) having a reflector (2) on a first surface thereof, a second substrate (23) having a polarizer (1) and a retardation film (25), the polarizer formed on a second surface of the second substrate, the retardation film formed on a first surface of the second substrate, and a liquid crystal layer interposed between the first surface of the first substrate and the first surface of the second substrate, wherein the retardation film is made of liquid crystal (LC Retarder) (Fig. 22). Although Tillin discloses a reflector on a first surface of the substrate (20), Tillin does not explicitly disclose that the reflector (2) is a reflective electrode. However, reflective electrode on the bottom side of a LCD device is quite common as disclosed by Kubo. Kubo in (Fig. 17) discloses a similar LCD device with two substrates (1,2), polarizers (6,9), phase compensating elements (Retarders) (11, 7, 10 and 12) and a reflective electrode (3). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to adapt the reflective electrode disclosed by Kubo to the LCD device disclosed by Tillin so that the device can be a reflective liquid crystal display.

Art Unit: 2871

- a. Claims 2,5 and 9: As to the product-by-process limitation "UV curing" is a specific process and the limitations of the devices mentioned in claims 1,4 and 7 do not depend on its method of production. It has been recognized that "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 227 USPQ 964,966 (Fed.cir.1985). See also MPEP 2113.
6. Claims 3-5, 7-8 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kubo (U.S.Patent No. 6,295,109) in view of applicant's disclosed conventional art.

As to claims 3-5, 7-8 and 11-13: Kubo discloses a transfective liquid crystal display, comprising: a liquid crystal panel including, a first substrate (2) having a first polarizer (9) and a reflective electrode (3), the first polarizer formed on a second surface thereof, the reflective electrode having at least one light transmitting hole (8) and a two retardation films (10,12) on a first surface, a second substrate (1) having a second retardation film (7) and a second polarizer (6) sequentially arranged on a second surface, and a liquid crystal layer (5) interposed between the first surface of the first substrate and the first surface of the second substrate, and a back light device for generating light. Kubo discloses

Art Unit: 2871

the retarders (10 and 12) and the polarizer (9) as being arranged under the substrate. The prior art disclosed by the applicant also discloses the retarder (50) and the polarizer (47) under the substrate (53). The arrangement of the retarder (50) above or below the substrate is quite irrelevant as far as the polarizing properties of the light is concerned, since the light that passes through the retarder (50) retains its polarization properties whether it goes thru the retarder first and then through the substrate or goes through the substrate first and then through the retarder. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to adapt the arrangement of retarder/substrate/polarizer or the arrangement of substrate/retarder/polarizer. Kubo in (Figs. 18C, 18D) discloses that the optical axis of the second retardation film (10) is perpendicular to that of the third retardation film (12).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prasad R Akkapeddi whose telephone number is 703-305-4767. The examiner can normally be reached on 7:00AM to 5:30PM M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William L Sikes can be reached on 703-308-4842. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Application/Control Number: 09/735,509

Page 6

Art Unit: 2871

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0530.

*PRA*

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September 16, 2002

*William L. Sikes*

William L. Sikes  
Supervisory Patent Examiner  
Technology Center 2800